

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference WJN/P36381WO	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/GB2004/005287	International filing date (day/month/year) 17/12/2004	(Earliest) Priority Date (day/month/year) 23/12/2003
Applicant  CAMBRIDGE UNIVERSITY TECHNICAL SERVICES LIMITED		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

**4. With regard to the title,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. With regard to the drawings,**

- a. the figure of the **drawings** to be published with the abstract is Figure No. 2

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/005287

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04B10/13

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 2004/056019 A (UNIVERSITY COLLEGE LONDON; CAMBRIDGE UNIVERSITY TECHNICAL SERVICES LIM) 1 July 2004 (2004-07-01) cited in the application page 3, line 28 - page 5, line 9 page 7, line 1 - page 9, line 27 figure 1	1-14
P, X	GB 2 399 963 A (* ZINWAVE LTD) 29 September 2004 (2004-09-29) the whole document ----- -/--	1-14

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

4 March 2005

Date of mailing of the international search report

10/03/2005

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/005287

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	RADDATZ L ET AL: "AN EXPERIMENTAL AND THEORETICAL STUDY OF THE OFFSET LAUNCH TECHNIQUE FOR THE ENHANCEMENT OF THE BANDWIDTH OF MULTIMODE FIBER LINKS" JOURNAL OF LIGHTWAVE TECHNOLOGY, IEEE. NEW YORK, US, vol. 16, no. 3, March 1998 (1998-03), pages 324-331, XP000751379 ISSN: 0733-8724 the whole document	1-14
X	----- US 2002/021469 A1 (CUNNINGHAM DAVID GEORGE ET AL) 21 February 2002 (2002-02-21) paragraph '0011! - paragraph '0012! paragraph '0040! - paragraph '0045!	1-14
A	----- WAKE D ET AL: "Radiofrequency transmission of 32-QAM signals over multimode fibre for distributed antenna system applications" ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 37, no. 17, 16 August 2001 (2001-08-16), pages 1087-1089, XP006017082 ISSN: 0013-5194 cited in the application the whole document	1-14

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No  
PCT/GB2004/005287

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004056019 A	01-07-2004	WO 2004056019 A1	01-07-2004
GB 2399963 A	29-09-2004	NONE	
US 2002021469 A1	21-02-2002	DE 69808454 D1	07-11-2002
		DE 69808454 T2	03-07-2003
		EP 0983650 A1	08-03-2000
		WO 9852303 A1	19-11-1998
		JP 2001525944 T	11-12-2001
		US 6304352 B1	16-10-2001